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JOHNSON-FERMELIA CO. INC.

CONSULTING ENGINEERS, ARCHITECTS AND SURVEYORS

DOCKET FILE COPY ORIGINAL

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
Replacement of Part 90	)	PR Docket 92-235
by Part 88 to Revise	)	
the Private Land Mobile	)	
Radio Services and Modify	)	
the Policies Governing them	)	

To: The Commission

COMMENT OF

Joseph W. Manatos, PLS
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Joseph W. Manatos, Principal/Director of Surveying with Johnson-Fermelia Co., Inc. submits the following comments in response to the Commissions's Notice of Proposed Rule Making in this proceeding.

1. In regards to § 88.429, and specifically Table C-3 to be used for systems in the 150-216 MHz and 450-470 MHz segments concerning power and antenna height limits, we have very serious concerns as to the effect on existing and future two-way radio systems. The severe restrictions placed on the Effective Radiated Power will have a serious detrimental effect on the feasibility and practicality of two-way radio systems.

One additional factor should be considered in formulating the power level charts such as chart C-3. This factor should be the population in an area prescribed by a circle of 75 mile radius from the transmitter. In densely populated areas, the power levels shown in the proposed chart may be a viable solution. In rural, mountainous, and areas of low population, the constraints placed on a two-way radio system by the proposed power levels would place an undo burden on the two-way radio user for no reason. Especially in rural, low population areas, there is not sufficient justification for the drastically decreased transmit power levels. In these areas, the channel users will not be a serious issue as is found in

areas of dense population. Users in rural, low population areas generally require two-way radio systems to cover a larger area than those in areas of dense population. Business, public safety, and local government users in rural areas need systems that will cover a large geographical area with the lowest possible number of transmitters in order to make a radio system economically feasible. We would propose a stepped chart similar to that of Chart C-14 with the criteria of service area radius being replaced by some criteria of the population level within a 75 mile radius of the transmitter site. Time limits imposed by the required comment deadline prevent us from designing a complete chart, but we would propose that as a first level that areas with a population of 250,000 or less within a 75 mile radius of the transmitter site have authorized power levels of 300 watts ERP. Successive table elements would consider areas of increasing population and antenna height until the more restrictive levels found in the current C-3 chart are reached in areas of high density population.

2. Regarding the General Category Pool and the proposal that all certified frequency coordinators be allowed to assign frequencies from this pool, we also have some reservations. If all coordinators are to be allowed to assign frequencies, a single, common and up-to-date database must be maintained for use by all coordinators. Multiple databases cannot be allowed. Allowing multiple databases to be maintained by various coordinators would cause continuous and harmful interference on the single designated contractor. The database requirements for this type of system will be quite enormous and the criteria for selecting a possible contractor will have to be carefully reviewed to ensure that the database is kept current, accurate and is available full time for access by the various coordinators.

An alternate solution may be to divide the United States into various 'coordination zones' with a single coordinator for each zone. This would reduce the database requirements for each system to a more manageable level. The coordinators would need to have cooperative arrangements for systems that would overlap zone boundaries similar to the arrangements now in place for inter-service sharing and adjacent channel authorizations.

3. The narrower bandwidth required by the proposed rules to create additional channels is for the most part a viable solution for the congestion now found on the current radio frequencies. However, we submit that a more gradual and extended phase-in period be implemented to reduce the economical impact on business, local government, and public safety users. The longer phase-in period would also allow for further research and development time by equipment manufacturers to address adequately all technical issues and requirements of the new specifications and to develop reliable, economic equipment.

4. Finally, we ask that the period for comments on the proposed rule-making be extended until July 30, 1993 in order to more fully evaluate the impact of the proposed changes and to make further recommendations to the Commission. We feel that field testing on existing systems of the new narrower bandwidth and reduced power levels are very much in order. In many parts of the country, winter weather conditions prevent or severely curtail

the feasibility of performing such tests. We ask for the extension of the comment period to allow for the system testing when weather conditions permit technical personnel easy access to transmitter sites to adjust existing systems for the new specifications and perform coverage tests during periods that will have a less serious effect on radio systems, businesses, and public safety operations. To perform such tests during the winter months would be difficult technically and could have a serious impact on the safety of property and lives.

Respectfully submitted,

JOHNSON-FERMELIA CO., INC.

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